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a driver coupled to the assembly arm to move the assembly arm between the carousel base and an unassembled data storage device to sequentially unload the plurality of assembly components from the component carousel and assemble the unloaded assembly components into the data storage device.

2. (Thrice Amended) The apparatus of claim 1 wherein the component carousel supports a plurality of stacks of the plurality of assembly components at spaced locations arranged about a center point and the apparatus comprises:

a motor coupled to the carousel base to rotationally position the plurality of stacks of assembly components for assembly.

3. (Thrice Amended) The apparatus of claim 1 wherein the carousel coupling device comprises a vacuum source operably coupled to the rotatable carousel base to supply vacuum pressure in an engaged mode to secure the component carousel to the carousel base and to release the vacuum pressure to remove the carousel.

4. (Thrice Amended) The apparatus of claim 2 further comprising an indexer coupled to the carousel base to align individual components from the plurality of stacks of the plurality of assembly components relative to the assembly arm.

5. (Thrice Amended) The apparatus of claim 2 and including a plurality of elongated components container configured to contain the plurality of assembly components removably coupleable to the carousel and positionable at spaced locations about a rotation axis of the carousel base.

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6.(Thrice Amended) The apparatus of claim 1 wherein the apparatus includes a plurality of carousel bases rotationally coupled to the frame and a plurality of carousel coupling devices to removably support multiple component carousels relative to the plurality of carousel bases and the driver moves the assembly arm between the multiple component carousels on the plurality of carousel bases to unload the multiple carousels on the plurality of carousel bases.

7.(Thrice Amended) The apparatus of claim 1 wherein the component carousel comprises a disc carousel removably coupled to the carousel base and adapted to support discs for assembly in a spindle motor of the data storage device.

9.(Amended)The apparatus of claim 8 wherein the plurality of disc containers include covers and the apparatus includes a cover detatcher to detach the disc container covers prior to assembling discs from the plurality of disc containers.

10.(Thrice Amended) The apparatus of claim 1 wherein the component carousel comprises a spacer carousel adapted to support spacers for assembly in a spindle motor of a data storage device.

11.(Thrice Amended) The apparatus of claim 1 wherein the apparatus is adapted to assembly components of a disc stack of a spindle motor and further comprising: 7

a plurality of carousel bases including a carousel base adapted to support a component carousel for discs and a carousel base adapted to support a component carousel for spacers;

a plurality of assembly arms including an assembly arm coupled to the carousel base supporting the component carousel for discs to assemble discs and

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- an assembly arm coupled to the carousel base supporting the component carousel for spacers to assemble spacers;
- a plurality of drivers coupled to the plurality of assembly arms to move the plurality of assembly arms between the plurality of carousel bases and a loading station; and
- a controller coupled to the plurality of drivers to coordinate operation of the plurality of assembly arms to alternately assemble the discs and the spacers.

12. (Thrice Amended) The apparatus of claim 11 wherein the component carousel for discs includes a frame including a plurality of circumferentially spaced latch assemblies to removably couple a plurality of disc containers to the carousel.

13. (Thrice Amended) The apparatus of claim 12 wherein the disc containers house a stack of coaxially aligned unassembled discs and further comprises an indexer to incrementally position the carousel base adapted to support the carousel for discs to sequentially unload individual discs in the stack of unassembled discs.

14. (Thrice Amended) The apparatus of claim 11 wherein the component carousel for spacers includes a base including a plurality of spacer posts arranged about a center point and sized to support a plurality of stacked spacers and including a motor coupled to the carousel base adapted to support the component carousel for spacers to move the carousel for spacers to align stacks of the plurality of stacked spacers for assembly.

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15. (Thrice Amended) The apparatus of claim 14 further comprising an index rod operably coupled to the component carousel for spacers to push the spacers towards an extended end of the spacer posts for assembly.

21. (Twice Amended) An assembly apparatus comprising:  
an assembly arm and assembly arm driver operably coupled to the assembly arm to operate the assembly arm to unload components from the assembly apparatus and load components in an unassembled device; and  
means for intermittently stocking the assembly apparatus with a supply of the components for assembly by the assembly arm.

22. (Amended) The apparatus of claim 6 wherein the apparatus includes a detector to detect when the multiple component carousels are empty and the assembly arm is coupled to a controller which is configured to shift operation of the assembly arm from one of the multiple carousels to another of the multiple carousels supported on the plurality of carousel bases based upon feedback from the detector.

23. (Amended) An assembly apparatus comprising:  
a frame;  
a plurality of carousel bases rotationally coupled to the frame and rotatable about spaced rotation axes;  
an assembly arm movably coupled to the frame;  
an assembly arm driver coupled to the assembly arm to operate the assembly arm to unload components from carousels coupled to the plurality carousel bases;  
and  
a controller operably coupled to the assembly arm and configured to sequentially operate the assembly arm

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between the plurality of carousel bases.

25. (Amended) The apparatus of claim 23 including a plurality of disc carousels removably coupled to the plurality of carousel bases and the plurality of disc carousels removably support a plurality of disc containers including a plurality of stacked discs.